WHAT IS CLAIMED IS:

1. A method of treating an auto-immune disease in an animal comprising the step of orally administering a type one interferon to said animal such that the type one interferon is ingested after oral administration.

2. The method of claim 1, wherein said interferon is selected from alpha-interferon and beta-interferon.

3. The method of claim 2, wherein said interferon is selected from the group consisting of human recombinant interferon, rat interferon and murine interferon.

4. The method of claim 2, wherein said interferon is administered in a dosage of from about 50 I.U./kg to about 25,000 I.U./kg.

5. The method of claim 1, wherein said interferon is administered every other day.

6. The method of claim 1, wherein said animal is a human.

7 The method of claim 1, wherein said auto-immune disease is selected from the group consisting of multiple sclerosis, rheumatoid arthritis, diabetes mellitus, psoriasis, organ-specific auto-immune diseases, chronic inflammatory demyelinating polyradiculoneuropathy and Guillain-Barré syndrome.

8. A method of decreasing the incidence of insulin-dependent diabetes mellitus in at-risk populations, comprising the step of orally administering INF-α to individuals of said at-risk population.

9. The method of claim 8, wherein said interferon is selected from the group consisting of human recombinant interferon, rat interferon and murine interferon.

10. The method of claim 8, wherein said interferon is administered in a dosage of from about 5 I.U./kg to about 50,000 I.U./kg.

11. The method of claim 8, wherein said interferon is administered every other day.

12. A method of reducing blood glucose levels in an animal comprising the step of orally administering INF-α to said animal such that the INF-α is ingested after oral administration.

13. The method of claim 12, wherein said interferon is selected from the group consisting of human recombinant interferon, rat interferon and murine interferon.

14. The method of claim 12, wherein said interferon is administered in a dosage of from about 50 I.U./kg to about 25,000 I.U./kg.

15. The method of claim 12, wherein said animal is a human.

16. A method of decreasing the onset of insulin-dependent diabetes mellitus in at-risk populations, comprising the step of orally administering INF-α to individuals of said at-risk population.

17. The method of claim 16, wherein said INF-α is selected from the group consisting of human recombinant interferon, rat interferon and murine interferon.

18. The method of claim 16, wherein said interferon is administered in a dosage of from about 50 I.U./kg to about 25,000 I.U./kg.